

e-LUP methodology

Concepts, objectives, and guidelines

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Important to start e-book work with a common conceptual understanding – break down barriers

- 1. What is sustainable development?**
- 2. What is a (sustainable) impact assessment?**
- 3. The EU approach**
- 4. The Russian Federation approach**

What is 'sustainable development'?

- UN 1972 Stockholm Conference on the Human Environment: Political acknowledgement of the potential conflict between *development and environment*
- 1980 – first definition presented in the *World Conservation Strategy: Living Resource Conservation for Sustainable Development* (UNEP, WWF & IUCN):

“Development is defined here as: the modification of the biosphere and the application of human, financial, living and non-living resources to **satisfy human needs** and improve the quality of **human** life. For development to be **sustainable** it must take account of **social** and **ecological** factors, as well as **economic** ones; of the **living and non-living resource base**; and of the **long term as well as the short term** advantages and disadvantages of alternative actions” (IUCN 1980)



Our Common Future (Brundtland Commission 1987) popularized the term

- ‘.....development that meets the **needs** of the present without compromising the ability of **future generations** to meet their own needs’ (World Commission on Environment and Development 1987: 43).
- Above we only see the (popular) short version. Subsequent paragraphs deepened the definition.

Process vs fixed state

- "Yet in the end, sustainable development is **not a fixed state of harmony**, but rather **a process of change**, in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs." (World Commission on Environment and Development 1987: 9)

Brundtlands short definition leaves large room for interpretation

- e.g. What are the needs of future generations?
- What is to be sustained?
- How are needs defined in different cultures?
- Important: It is possible to experience both economic growth **and** environmental improvement
- There is still comprehensive conceptual disagreement regarding definition of sustainable development

The three pillars

- However, today widespread agreement that sustainable development is containing three-pillars ('triple bottom line' (TBL) concept). Three pillars of **equal** importance in sustainable development decision-making: ***Environmental***, ***social***, and ***economic*** considerations
- But, some disagreement regarding the exact **content** of each pillar (e.g. at the moment EU lists 32 impact issues)

Economists and sustainable development

- In general, economists are comfortable with the Brundtland Commission's brief interpretation of sustainability.
- Easy translatable into economic terms: an increase in well-being today should not have as its consequences a reduction in well-being tomorrow.
- Beware, economic efficiency and sustainability are *not* the same objectives. Efficiency does not guarantee sustainability, although it is possible to have both.



Assessing sustainable development

- Sustainability assessment (SA) has evolved from the fields of environmental impact assessment (EIA) and strategic environmental assessment (SEA)
- Belongs to the family of impact assessment
- Difficult to operationalize the concept
- Both ex post and ex ante assessments are possible

Total capital stock

- A possible path to assessing sustainable development is to view environmental resources as important economic assets - called **natural capital** (e.g. an ecosystem, wild animals etc).
- In the same way as we talk about **physical** and **human** capital.
- Then, the world's '**total capital stock**' is the aggregate value of natural capital, human capital and physical capital.
- As a minimum, sustainable development requires that the total stock of capital is not decreasing.
- However, it is possible to **distinguish** between 'weak' and 'strong' sustainability. A method which appears to be compatible to the EU impact assessment approach



Weak sustainability

- **Weak sustainability** is achieved when the total capital stock – physical, human and natural – is non-declining through time.
- **Consequence:** A situation where natural capital is declining, is potentially sustainable if the total capital stock is not decreasing and the loss is substituted for. Demands that the three types of capital are substitutes for one another
- An **example** of substitutability of this sort would be if the loss of a particular ecosystem is compensated for by an increase in the stock of human knowledge

Strong sustainability

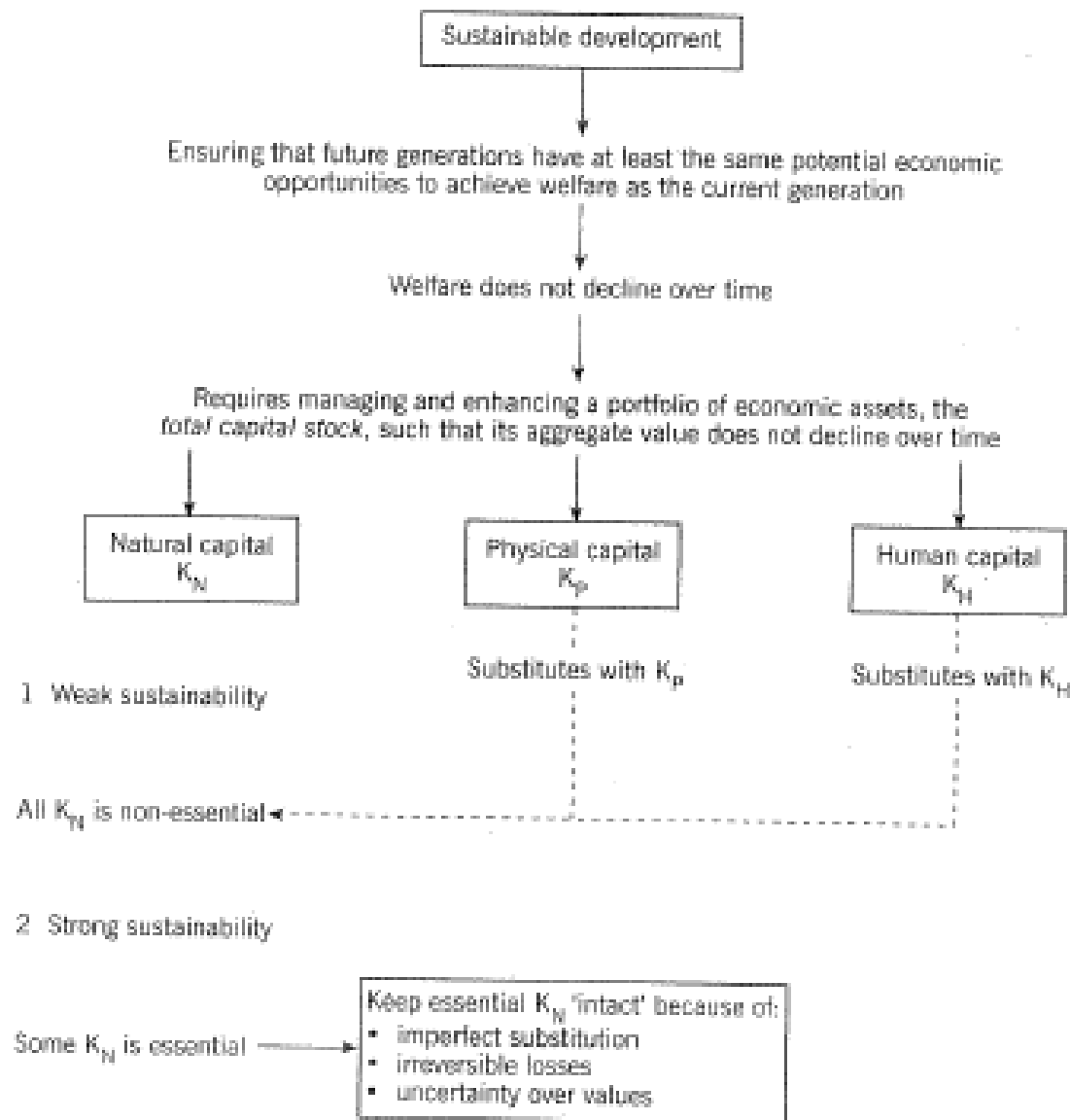
- **Strong sustainability** affords environmental (or natural) capital a special place.
- Sustainable development is attained, in a strong sense, if the nation's stock of **environmental capital is non-decreasing**.



Modified strong sustainability

- Some part of the capital stock is likely to be of particular importance, providing valuable and non-substitutable environmental services to the economic process. If we call this **critical natural capital**, then the **modified version of strong sustainable development requires that development does not lead to a decline through time of a nation's stock of critical natural capital**" (Perman et al 1999: 58 based on Atkinson & Pearce 1993)
- Needless to say, a consequence of this argumentation is that some natural capital is non-critical
- Demands listing of critical natural capital





Alternative approach

- “An alternative approach to defining conditions for sustainable development is to use **ecological indicators**. One might define an economy-environment system as being sustainable if it is **resilient** to a wide variety of shocks and stresses. Given this, a sustainable development indicator would be some indicator of resilience. This is likely, however, to be difficult to construct in practice” (Perman et al 1999: 58 based on Atkinson & Pearce 1993)

EU objectives

- Signatory of Rio Convention 1992
- The three pillars of sustainable development included in the Amsterdam Treaty (1997)
- Renewed sustainable development strategy June 2006. **Very** broad:

- “It is about safeguarding the earth's capacity to support life in all its diversity and is based on the principles of **democracy, gender equality, solidarity, the rule of law** and **respect for fundamental rights**, including freedom and equal opportunities for all. It aims at the continuous improvement of the quality of life and well-being on Earth for present and future generations. To that end it promotes a dynamic economy with **full employment** and a high level of **education, health protection, social and territorial cohesion** and **environmental protection** in a **peaceful and secure world**, respecting **cultural diversity**.”
(Council of the European Union 2006: 2)

EU sustainability assessments

- Introduced sustainability impact assessments (trade negotiations) 1999
- June 2002 EU introduces the broader term 'Impact Assessment' (IA) to replace all previous EU single-sector type of assessments
- Commission expect IA to contribute to fulfilling the objectives of the sustainable development strategy
- Therefore IA is essential in the e-LUP project as well

Overview of the development of the sustainability concept in EU (European Commission Secretariat General 2004: 15)

Sustainability was (primarily)	Sustainability is (primarily)
taking account of environmental protection and development	balancing and integrating the three dimensions (economic, social and environmental)
expert led and the responsibility of Government	an opportunity for broad participation
a substantial concept	a procedural concept

EU impact assessment

- ‘Impact assessment (IA) is a process aimed at **structuring** and **supporting** the development of policies. It identifies and assesses the problem at stake and the objectives pursued. It identifies the main options for achieving the objective and analyses their likely impacts in the economic, environmental and social fields. It outlines advantages and disadvantages of each option and examines possible synergies and trade-offs.
- Impact assessment is an aid to *political decision*, not a substitute for it. It informs decision-makers of the likely impacts of proposals, **but it leaves it up to them to take the decisions.**
(http://europa.eu.int/comm/secretariat_general/impact/index_en.htm)

Six key analytical steps

- Identify the problem
 - Define the objectives
 - Develop main policy options
 - Analyse their impacts
 - Compare the options
 - Outline policy monitoring and evaluation
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- Described more detailed in the manual
 - The Sensor project might be a catalysator for us

EU impact assessment experiences

- Many disappointing assessments
- Quality often poor
- Environmental pillar often not sufficiently covered
- Often difficult to monetarize all variables
- Often no distinction between short term and long term
- Optimal assessment demands huge loads of data (and therefore resources)
- Hopefully, training can improve the situation

The Russian Federations objectives

- Signatory of the Rio Convention and Agenda 21
- Russia has approved a series of legislative acts with the aim of implementing e.g. *Agenda 21* and applying the concept of sustainable development domestically
- Legislation regarding Environmental impact assessment. Mixed results
- World Bank study (2002) criticized implementation of EIA in Russia
- Situation today. Disagreement in the literature
- According to Oldfield and Shaw (2002) it is difficult to translate 'sustainable development' into the Russian language:



- “The official Russian term *ustoichivoe razvitie* literally means ‘stable’ or ‘steady development’. The Russian term thus tends to lose the ecological connotations of the word ‘sustainable’.
- The term is sometimes augmented in official documents by reference to the importance of achieving a ‘balanced solution’ (*sbalansirovannoe reshenie*) of socio-economic and environmental problems together with the satisfaction of the needs of both present-day and future generations.
- As such, Russia’s official interpretation of sustainable development appears to overlap to a considerable extent with Western understandings of the concept. This is reflected in legislation published since 1994

Vernadskys biosphere-noosphere-model

- Some official Russian documents draw a line between the work of Russian scientist V.I. Vernadsky (1863-1945) and the concept of sustainable development.
- Noosphere: when the spiritual values and understanding of humankind, existing in harmony with the environment, will become the principal criterion of national and individual wealth

- It is argued in official documents that “[T]he noosphere – is the concluding stage of sustainable development, a desired future state of society which will ensure the ecologically acceptable influence of humankind on nature and the rationalisation of human needs”
- Problematic argumentation because this understanding is focusing on a state of **harmony** instead of the **process**
- Furthermore, noosphere can not be initiated by humans. In contrast, sustainable development is dependent on human initiative.

Need for training

- There is a relatively high awareness of sustainable development among Commission personnel, but also some internal differences in the perception of sustainability
- Some conflicts in Russia as well
- If we want to teach people in Russia and EU about sustainable development, we have to develop a common understanding of the concepts and how to assess them